

CLAIMS

What is claimed is:

1 1. A method for preparing electronic data for transmission, comprising
2 calculating a duration for compressing the electronic data, calculating a duration
3 for transmitting the electronic data if not compressed, and compressing the
4 electronic data only if the duration for compressing does not exceed the duration
5 for transmitting.

1 2. The method of Claim 1, wherein calculating the duration for
2 compressing the electronic data comprises calculating a duration for
3 compressing a portion of the electronic data, and wherein compressing
4 comprises compressing the portion of the electronic data only if the duration for
5 compressing does not exceed the duration for transmitting.

1 3. The method of Claim 1, wherein calculating the duration for
2 compressing includes calculating a combined duration for compressing and
3 decompressing the electronic data and wherein compressing comprises
4 compressing the electronic data only if the combined duration does not exceed
5 the duration for transmitting.

1 4. The method of Claim 1, further comprising calculating a duration
2 for transmitting the electronic data if compressed, and wherein compressing
3 comprises compressing the electronic data only if the duration for compressing
4 summed with the duration for transmitting the electronic data if compressed
5 does not exceed the duration for transmitting the electronic data if not
6 compressed.

1 5. The method of Claim 1, further comprising calculating a duration
2 for transmitting the electronic data if compressed, and wherein calculating the
3 duration for compressing includes calculating a combined duration for
4 compressing and decompressing the electronic data, and wherein compressing

5 comprises compressing the electronic data only if the combined duration
6 summed with the duration for transmitting the electronic data if compressed
7 does not exceed the duration for transmitting the electronic data if not
8 compressed.

1 6. The method of Claim 1, wherein calculating the duration for
2 transmitting the electronic data if not compressed includes identifying a transmit
3 rate for a port through which the electronic data will be transmitted and
4 calculating the duration according to the transmit rate for the port and a size of
5 the electronic data.

1 7. The method of Claim 1, wherein calculating the duration for
2 transmitting the electronic data if not compressed includes:
3 noting a transmit rate; and
4 calculating the duration for transmitting the electronic data according to a
5 size of the electronic data and the transmit rate.

1 8. The method of Claim 7, wherein noting comprises measuring a
2 duration for transmitting other electronic data, identifying a size of the other
3 electronic data, and calculating the transmit rate based on the measured
4 duration for transmitting the other electronic data and the identified size of the
5 other electronic data.

1 9. A method for preparing a print job containing raster data,
2 comprising:
3 calculating a duration for compressing the raster data;
4 calculating a duration for transmitting the print job if the raster data is not
5 compressed; and
6 compressing the raster data only if the duration for compressing does not
7 exceed the duration for transmitting.

1 10. The method of Claim 9, further comprising transmitting the print
2 job to an image forming device.

1 11. The method of Claim 9, wherein calculating the duration for
2 transmitting the print job includes identifying a transmit rate for a port through
3 which the print job will be transmitted en route to an image forming device and
4 calculating the duration according to the transmit rate for the port and a size of
5 the print job.

1 12. The method of Claim 9, wherein calculating the duration for
2 transmitting the print job includes:
3 noting a transmit rate; and
4 calculating the duration for transmitting the print job according to a size
5 of the print job and the transmit rate.

1 13. The method of Claim 12, wherein noting comprises measuring a
2 duration for transmitting a prior print job, identifying a size of the prior print job,
3 and calculating the transmit rate for the prior print job based on the measured
4 duration for transmitting the prior print job and the identified size of the prior
5 print job.

1 14. The method of Claim 13, wherein measuring a duration comprises
2 measuring a duration for transmitting the prior print job from a print queue to an
3 image forming device.

1 15. A computer readable medium having instructions for calculating a
2 duration for compressing electronic data, calculating a duration for transmitting
3 the electronic data if not compressed, and compressing the electronic data only
4 if the duration for compressing does not exceed the duration for transmitting.

1 16. The medium of Claim 15, wherein the instructions for calculating
2 the duration for compressing the electronic data include instructions for
3 calculating a duration for compressing a portion of the electronic data, and

4 wherein the instructions for compressing include instructions for compressing
5 the portion of the electronic data only if the duration for compressing does not
6 exceed the duration for transmitting.

1 17. The medium of Claim 15, wherein the instructions for calculating
2 the duration for compressing include instructions for calculating a combined
3 duration for compressing and decompressing the electronic data and wherein the
4 instructions for compressing include instructions for compressing the electronic
5 data only if the combined duration does not exceed the duration does
6 transmitting.

1 18. The medium of Claim 15, further comprising calculating a duration
2 for transmitting the electronic data if compressed, and wherein the instructions
3 for compressing include instructions for compressing the electronic data only if
4 the duration for compressing summed with the duration for transmitting the
5 electronic data if compressed does not exceed the duration for transmitting the
6 electronic data if not compressed.

1 19. The medium of Claim 15, further comprising calculating a duration
2 for transmitting the electronic data if compressed, and wherein the instructions
3 for calculating the duration for compressing include instructions for calculating a
4 combined duration for compressing and decompressing the electronic data, and
5 wherein the instructions for compressing include instructions for compressing
6 the electronic data only if the combined duration does summed with the duration
7 for transmitting the electronic data if compressed does not exceed the duration
8 for transmitting the electronic data if not compressed.

1 20. The medium of Claim 15, wherein the instructions for calculating
2 the duration for transmitting the electronic data if not compressed include
3 instructions for identifying a transmit rate for a port through which the electronic
4 data will be transmitted and calculating the duration according to the transmit
5 rate for the port and a size of the electronic data.

1 21. The medium of Claim 15, wherein the instructions for calculating
2 the duration for transmitting the electronic data if not compressed include
3 instructions for:
4 noting a transmit rate; and
5 calculating the duration for transmitting the electronic data according to a
6 size of the electronic data and the transmit rate.

1 22. The medium of Claim 21, wherein the instructions for noting
2 include instructions for measuring a duration for transmitting other electronic
3 data, identifying a size of the other electronic data, and calculating the transmit
4 rate for the other electronic data based on the measured duration for
5 transmitting the other electronic data and the identified size of the other
6 electronic data.

1 23. A computer readable medium having instructions for:
2 calculating a duration for compressing the raster data;
3 calculating a duration for transmitting a print job if the raster data is not
4 compressed; and
5 compressing the raster data only if the duration for compressing does not
6 exceed the duration for transmitting.

1 24. the medium of Claim 23, having further instruction for transmitting
2 the print job to an image forming device.

1 25. The medium of Claim 23, wherein the instructions for calculating
2 the duration for transmitting the print job include instructions for identifying a
3 transmit rate for a port through which the print job will be transmitted en route
4 to an image forming device and calculating the duration according to the
5 transmit rate for the port and a size of the print job.

1 26. The medium of Claim 23, wherein the instructions for calculating
2 the duration for transmitting the print job include instructions for:
3 noting a transmit rate; and
4 calculating the duration for transmitting the print job according to a size
5 of the print job and the transmit rate.

1 27. The medium of Claim 26, wherein the instructions for noting
2 include instructions for measuring a duration for transmitting a prior print job,
3 identifying a size of the prior print job, and calculating the transmit rate for the
4 prior print job based on the measured duration for transmitting the prior print job
5 and the identified size of the prior print job.

1 28. The medium of Claim 27, wherein the instructions for measuring a
2 duration include instructions for measuring a duration for transmitting the prior
3 print job from a print queue to an image forming device.

1 29. A system for preparing a print job containing raster data,
2 comprising:
3 a bandwidth module operable to supply data relating to a transmit rate for
4 the print job;
5 a duration module operable to calculate a duration for compressing the
6 raster data and to calculate, based on a transmit rate supplied by the bandwidth
7 module, a duration for transmitting the print job if the raster data is not
8 compressed; and
9 a compression selector operable to instruct that the raster data be
10 compressed only if the duration for compressing does not exceed the duration
11 for transmitting.

1 30. The system of Claim 29, wherein one or more of the bandwidth
2 module, duration module, and the compression selector are programming
3 elements of a print driver.

1 31. The system of Claim 29, wherein the bandwidth module is
2 operable to supply data identifying a port through which the print job will be
3 transmitted en route to an image forming device, and wherein the duration
4 module is operable to calculate the duration for transmitting the print job by
5 identifying a transmit rate for the port and calculating the duration according to
6 the transmit rate for the port and a size of the print job.

1 32. The system of Claim 29, wherein the bandwidth module is
2 operable to identify a port through which the print job will be transmitted,
3 identify an assumed transmit rate for that port, and supply the duration module
4 with the assumed transmit rate.

1 33. The system of Claim 29, wherein the bandwidth module is
2 operable to supply a transmit rate for a prior print job, and wherein the duration
3 module is operable to calculate the duration for transmitting the print job
4 according to a size of the print job and the transmit rate of the prior print job.

1 34. The system of Claim 33, wherein the bandwidth module is
2 operable to measure a duration for transmitting the prior print job, identify a size
3 of the prior print job, and calculate the transmit rate for the prior print job based
4 on the measured duration for transmitting the prior print job and the identified
5 size of the prior print job.

1 35. The system of Claim 34, wherein the bandwidth module is
2 operable to measure the duration by measuring a duration for transmitting the
3 prior print job from a print queue to an image forming device.

1 36. A print server, comprising:
2 a print queue;
3 a queue manager operable to administer print jobs in a print queue;
4 a bandwidth module operable to supply data relating to a transmit rate for
5 a print job;

1 a duration module operable to calculate a duration for compressing the
2 raster data and to calculate, based on a transmit rate supplied by the bandwidth
3 module, a duration for transmitting the print job if the raster data is not
4 compressed; and

5 a compression selector operable to instruct the queue manager to
6 compress the raster data only if the duration for compressing does not exceed
7 the duration for transmitting.

1 37. A system for preparing electronic data for transmission,
2 comprising:

3 a means for calculating a duration for compressing the electronic data;
4 a means for calculating a duration for transmitting the electronic data if
5 not compressed; and
6 a means for compressing the electronic data only if the duration for
7 compressing does not exceed the duration for transmitting.

1 38. A system for preparing a print job containing raster data,
2 comprising:

3 a means for supplying data relating to a transmit rate for the print job;
4 a means for calculating a duration for compressing the raster data;
5 a means for calculating a duration for transmitting the print job if the
6 raster data is not compressed; and
7 a means for instructing that the raster data be compressed only if the
8 duration for compressing does not exceed the duration for transmitting.

1 39. The system of Claim 38, wherein the means for supplying is a
2 means for supplying data relating to a port through which the print job will travel
3 en route to an image forming device.

1 40. The system of Claim 38, wherein the means for supplying is a
2 means for supplying a transmit rate for a prior print job.